

SPECIFICATIONS

Surveying Performance			
Signal Tracking	692 Channels, 555 Channels (Optional)		
	BDS (B1, B2, B3)		
	GPS (L1C/A, L1C, L2C, L2E, L5)		
	GLONASS (L1C/A, L1P, L2C/A, L2P, L3)		
	SBAS L1C/A, L5 (Just for the satellites supporting L5)		
	Galileo (GIOVE-A, GIOVE-B, E1, E5A, E5B)		
	QZSS, WAAS, MSAS, EGNOS, GAGAN, SBAS, L-band (optional)		
GNSS Features	Positioning output rate:		1Hz~50Hz
	Initialization time:		< 10s
	Initialization reliability:		>99.99%
Positioning Precision			
Code Differential GNSS Positioning	Horizontal:	±0.25 m + 1 ppm	
	Vertical:	±0.50 m + 1 ppm	
	SBAS positioning accuracy:	typically<5m 3DRMS	
Static GNSS Surveying	Horizontal:	±2.5 mm + 0.5 ppm	
	Vertical:	±5 mm + 0.5 ppm	
Real-Time Kinematic Surveying	Single base (<30km)		
	Horizontal:	±8 mm + 1 ppm	
	Vertical:	±15 mm + 1 ppm	
Network RTK	Horizontal:	±8 mm + 0.5 ppm	
	Vertical:	±15 mm + 0.5 ppm	
	RTK initialization time:	2~8s	
Hardware			
Dimension	12.9 cm×11.2cm		
Weight	970g (including battery)		
Material	Magnesium aluminum alloy body		
Temperature	Operating:	-45℃ ~ +60℃	
	Storage:	-55℃ ~ +85℃	
Humidity	Non-condensing		
Level of Protection	Waterproof:	IP67 standard immersion to depth of maximum 1m	
	Dustproof:	IP67 standard against blowing dust	
Shock and Vibration	Not operating:	Withstand 2 meters high on the rod drop to the cement ground naturally	
	Withstand 40G 10 milliseconds sawtooth wave impact test		
Electrical			
Power Consumption	2W		
Battery Life	Single battery:	7h (static mode)	
		5h (internal UHF base mode)	
		6h (rover mode)	
Communications and Data Storage			
I/O Port	5PIN LEMO external power port + RS232		
	7PIN LEMO RS232 + USB		
	1 network/UHF data link antenna port		
UHF module	Integrated internal UHF receiver and transmitter 0.5W/2W		
	Working frequency 410-470MHz		
	Communication protocol: PCC EOT, SOUTH		
External radio transmitter*	NO		
Cellular Mobile Network	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE		
Double Module Bluetooth	BLEBluetooth 4.0 standard, support for android, Windows mobile		
	Bluetooth 2.1 + EDR standard		
WiFi	802.11b/g		
NFC Communication	Enable close range (shorter than 10cm) automatic pair between receiver and controller (for controller equipped with NFC only)		
Data Storage	8GB internal storage, more than 3 years raw observation data (about 1.4M/day), based on recording from 14 satellites		
Data Downloading	Plug and play mode, USB flash disk		
Data Format	Differential data format: CMR+, CMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2		
	GPS output data format: NMEA 0183, PJK plane coordinates, binary code		
	Network model support:	VRS, FKP, MAC, supporting NTRIP protocol	
Inertial Sensing System			
Tilt Survey (Optional)*	Built-in tilt compensator,		
Electronic Bubble (Optional)*	Controller software display electronic bubble, showing levelling bubble status realtime		
Thermometer	Built-in thermometer sensor, which can monitor and adjust the temperature of receiver in real time.		
User Interaction			
Buttons	One-button operation, convenient and efficient		

* Optional : Should be Purchase Saparately



GALAXY G1



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Every significant and revolutionary change in human history is accompanied with new technology.

Computer and electronics make surveying and mapping industry achieve a span from analog era to digital era.

And the development of Internet technology further opens a prelude of Informationization survey era.

Ubiquitous internet is penetrating and remodeling our present survey technology and will definitely bring unprecedented transformation which might finally change the way we survey the world.

To embrace this new era, south is building better products, such as G1,G1 Plus...



KEY FEATURES



GNSS features

With the ability of tracking satellites signals from all kinds of running satellite constellations, receiver can work in Fixed solution in most of time of a day.

Bluetooth

Dual-mode Bluetooth v4.0 enables receiver to connect to controller and other smart device smoothly (like our android phone), enlarges the Bluetooth work range and improves the data stream stability.

NFC

With a simple touch, the controller and receiver can be paired successfully. NFC makes Bluetooth connection much faster and easier to operate.



Tilt survey

Tilt survey

Inbuilt tilt sensor enables the precision survey without centering the rod which greatly improves the survey efficiency.

Temperature control technology

Inbuilt sensitive thermometer sensors can monitor the temperature of different modules inside receiver in real time to avoid overheating.



OPTIMIZING

New SIM card slot

The new design of SIM card slot make inserting and removing of SIM card much easier.



Stable UHF antenna interface

More stable and firm TNC style interface is adopted, compared with previous SMA style interface.



UPGRADES

Intelligent platform

Linux OS

Linux operating system greatly improves RTK efficiency of configuration. A unique core processing mechanism allows it to respond to multiple command at one time, thus it can operate much faster than before.



Linux OS



Web UI management platform

It enables the receiver's Web UI be visited by either WIFI mode or cable mode. User can monitor receiver's status and configure the settings conveniently via its Web UI.

Advanced WiFi technology

Receiver itself can generate WIFI hotspot to allow computer or phone to visit its Web UI and configure receiver. And receiver can access WIFI and utilize WIFI network as datalink.



4G

4G network module

The new generation of G1 is equipped with 4G module which supports TDD-LTE/FDD-LTE 4G network (also compatible with 3G network) and brings high speed communication between Base and Rover.

Powerful UHF module

UHF module supports radio protocols such as Trimtalk450S, TrimMark3,PCC EOT , South and user can freely set radio frequency(410-470Mhz) and set the transmission power on three shift(high, medium, low).

UHF repeater: The rover can broadcast the received correction data via UHF to other rovers after it receives the correction data which transmitted by the base via UHF.



Internet repeater: The rover can broadcast the received correction data via UHF to other rovers after it receives the correction data which transmitted by the base via network.



Intelligent storage technology

Besides the internal 8G SSD memory, it also supports external USB flash disk storage. Support automatic storage cycling, the older data will be replaced automatically by new data when the space is not enough.



4GB or 8GB